

IN THE CLAIMS

Please amend the claims as follows:

1. (Original) A method of fabricating a thermal interface structure, the method comprising:
preparing a composite slurry of carbon nanotubes in a liquid polymer;
aligning the nanotubes in the composite by applying an electrostatic field; and
curing the composite while continuing to apply the electrostatic field.
2. (Original) The method of claim 1 also comprising forming the composite into a thermal interface structure.
3. (Original) The method of claim 1 wherein aligning the nanotubes in the slurry comprises:
dispensing the slurry onto a surface of a continuous conveyor as a layer of unaligned carbon nanotube composite; and
applying an electrostatic field to the layer of unaligned carbon nanotube composite to form an aligned carbon nanotube composite with the carbon nanotubes substantially perpendicular to the surface of the conveyor.
4. (Original) The method of claim 3 wherein aligning the carbon nanotubes and curing the polymer are carried out while the continuous conveyor is moving the composite.
5. (Original) The method of claim 1 wherein the aligning of the carbon nanotubes in the composite is performed by applying an electrostatic field to the composite.
6. (Original) The method of claim 5 wherein applying an electrostatic field to the composite is performed by immersing at least a portion of a parallel plate capacitor in the composite.

7. (Original) The method of claim 6 wherein the applying the electrostatic field to the slurry between the plates of the capacitor continues during at least a portion of the time during which curing of the polymer occurs.
8. (Original) The method of claim 5 wherein applying an electrostatic field to the composite is performed by placing at least a portion of the composite between plates of a parallel capacitor which are not in contact with the composite.
9. (Currently amended) The method of claim 6 [[1]] wherein curing of the composite is carried out, at least in part, during the aligning of the nanotubes in the composite.
10. (Original) The method of claim 6 also comprising forming the composite into a billet.
11. (Original) The method of claim 10 wherein the length and width dimensions of the capacitor plates are larger than the length and width dimensions of the thermal interface structure.
12. (Currently Amended) The method of claim 10 [[1]] wherein aligning the carbon nanotubes in the composite comprises:
 - inserting at least one parallel plate capacitor in a bath containing the composite slurry;
 - adjusting the spacing of plates of the capacitor until the distance between them is substantially equal to the desired thickness of the thermal interface material billet;
 - applying an electrostatic field to the slurry between the plates; and
 - removing the capacitor from the bath.
13. (Original) The method of claim 12 wherein applying an electrostatic field to the slurry between the plates comprises applying a voltage between the plates of the capacitor.

14. (Original) The method of claim 12 wherein curing the composite is commenced while the electrostatic field is being applied.

15. (Original) The method of claim 5 wherein applying an electrostatic field comprises inserting at least one parallel plate capacitor in a bath containing the composite slurry; adjusting the spacing of plates of the moving the plates of capacitor until the distance between them is substantially equal to the desired thickness of the thermal intermediate; connecting the plates of the capacitor to a voltage source
applying an electrostatic field to the slurry between the plates; and
removing the capacitor from the bath[[:]].

16. (Original) A method of fabricating a thermal interface material, the method comprising: preparing a slurry of carbon nanotubes in a liquid polymer;
dispensing the slurry onto a surface of a conveyor as a layer of unaligned carbon nanotube composite;
applying an electrostatic field to the layer of unaligned carbon nanotube composite to form an aligned carbon nanotube composite with the carbon nanotubes substantially perpendicular to the conveyor; and
curing the aligned carbon nanotube composite.

17. (Original) The method of claim 16 further comprising subdividing the aligned carbon nanotube composite into individual billets.

18. (Original) The method of claim 16 wherein applying the electrostatic field to the layer of unaligned carbon nanotube composite is performed by placing opposing plates of a capacitor adjacent opposing sides of the surface of the conveyor bearing the slurry.

Claims 19–24. (Canceled)

25. (New) A method of fabricating a thermal interface structure, the method comprising:
preparing a composite slurry of carbon nanotubes in a liquid polymer;
applying an electrostatic field to align the nanotubes; and
curing the composite.
26. (New) The method of claim 25 also comprising forming the composite into a thermal interface structure.
- 27 (New) The method of claim 26 wherein the aligning of the carbon nanotubes in the composite is performed by applying an electrostatic field to the composite.